

U.S. DEPARTMENT of ENERGY

# ALTERNATIVE FUEL NEWS

An Official Publication of the Clean Cities Network and the Alternative Fuels Data Center

From the Office of Energy Efficiency and Renewable Energy

## The **AFV** Resale Market

*Gearing up to  
put cleaner vehicles  
on the road*

**PLUS**  
**E85 Grows in Popularity**  
A success story from Minnesota



### **INSIDE:**

**Up Close  
with Ford**

*Interview with Beryl Stajich,  
Fleet/AFV Brand Team Manager*



Dear Readers,

Happy New Year! This issue marks the start of the fifth volume of AFN. The Clean Cities network is growing, and more fleets are considering alternative fuels. "Industry old-timers" that have been using alternative fuels since the passage of Energy Policy Act of 1992 are beginning to replace their used alternative fuel vehicles (AFVs) with new ones. Many of the used vehicles, however, still have a lot of life left in them. Used AFVs can offer fleets that are new to the world of alternative fuels a less expensive way to test the waters. Our cover story for this issue examines the current used AFV market and describes a few local AFV resale efforts.

Clean Cities not only promotes AFVs, but also—and perhaps more importantly—encourages the increased use of alternative fuel in AFVs. Flexible fuel vehicles (FFVs), with no incremental cost, were once considered the solution to the notorious chicken and egg problem of the alternative fuel industry. FFVs are an attractive option for fleets, but if drivers do not fuel their vehicles with E85, FFVs contribute nothing to our clean air and petroleum displacement goals. To help connect FFV drivers with the fuel, the Minnesota E85 Team, which recently celebrated the opening of the 50th public access E85 station in the Twin Cities region, has come up with some creative ways to promote E85 use. You can learn more about the Minnesota effort—which has built the largest E85 refueling network in the country—in our feature story.

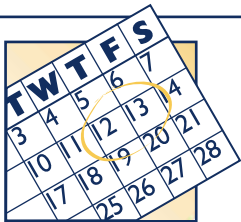
As we say good-bye to the first year of the new millennium, we must also say good-bye to two of our Department of Energy (DOE) colleagues. DOE's Ernie Rios, Clean Cities Regional Program Manager for California, will take on new challenges in the Department. We will surely miss his energy, his dedication to alternative fuels—and of course—his style. But we are not without Clean Cities support in California, as DOE's Julia Oliver has picked up where Ernie left off. We also say farewell to DOE's David Godfrey, Clean Cities Program Manager for the Atlanta region. David will soon leave Clean Cities to focus his efforts on bioenergy projects. But as we lose one David, we gain another. David Dunagan is the new DOE Clean Cities contact for the Atlanta region. We wish both Ernie and David Godfrey the best of luck in their new positions, and welcome Julia and David Dunagan to the Clean Cities team.

We have much to look forward to in the new year. First and foremost, we will be welcoming a new Administration and a new Secretary of Energy. We will also celebrate the addition of two new Clean Cities coalitions this spring—Triangle Clean Cities, based in Raleigh, North Carolina, and the Twin Cities Clean Cities Coalition in Minnesota. And of course, we look forward to greeting everyone in Philadelphia for the Seventh National Clean Cities Conference, May 13–16.

Best wishes for 2001, and as usual, enjoy the issue.

**Shelley Launey, Director**

Clean Cities Program  
U.S. Department of Energy



## Upcoming Conferences and Events

### **Clean Heavy-Duty Vehicles for the 21st Century: Exploring Trends in Advanced Technologies and Fuels**

March 21–23, 2001

Sheraton San Marcos Resort and Conference Center  
Chandler, Arizona

Contact: Susan Romeo @ 626-744-5600

### **7th National Clean Cities Conference and Exposition**

May 13–16, 2001

Pennsylvania Convention Center  
Philadelphia, Pennsylvania

Contact: Clean Cities Hotline @ 800-224-8437

### **FutureTruck 2001 Competition**

June 4–13, 2001

General Motors Proving Ground  
Milford, Michigan

Contact: Kristen De La Rosa @ 512-481-8876, or  
512-481-9043

### **17th Annual International Fuel Ethanol Workshop and Trade Show**

"Where Practical Application and Research Meet to Improve Grain and Cellulose Ethanol Production"

June 19–22, 2001

Radisson Hotel Riverfront  
St. Paul, Minnesota

Contact: Bryan & Bryan Inc. @ 719-942-4353

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# The AFV Resale Market

*Gearing Up to Put Cleaner Vehicles on the Road*

Today's high tech automotive superstores promising low prices and no-hassle policies have lured many consumers away from new car purchases. The popularity of leasing, where lessees return their vehicles to dealers after a few years of use, has greatly increased the availability of clean, late-model vehicles in excellent condition—providing used car buyers with new car options. Internet sites and on-line brokerage services have also made it easier for consumers to research their choices and have facilitated used car purchases. The used car business is booming... at least for conventionally fueled vehicles.

Alternative fuel vehicles (AFVs) are clearly not as prevalent as gasoline and diesel vehicles, but the numbers are growing steadily and fleets that entered the AFV market a few years ago are now beginning to replace their older AFVs with new ones. So what happens to the used vehicles?

Many owners are preparing to retire their first generation of original equipment manufactured (OEM) AFVs.

The AFV resale market is best characterized as an emerging opportunity. Most of the AFVs available for resale have been older bi-fuel conversions, sold at public auctions. Very few buyers have kept the alternative fuel modifications on these vehicles and instead have converted them back to gasoline. Even worse, some buyers have failed to realize they have purchased an AFV.

Over the past 10 years, however, AFV technology has improved significantly and automakers now offer customers a wider variety of vehicles from which to choose. Many are preparing to retire the first batch of their original equipment manufactured (OEM) AFV purchases—a move that can strengthen and broaden the used AFV inventory. As high gasoline prices and growing air quality concerns encourage more people to turn to AFVs, many may welcome the chance to test the waters by purchasing a used vehicle. Unfortunately, interested buyers have limited options for finding resale information. Some are able to find what they need using one of the few Web sites that lists used vehicles; others must rely on word of mouth.

Ford Motor Company offers a used vehicle electronic auction service to its dealers and several other AFV proponents have initiated small-scale independent efforts for specific fuels to better connect used vehicles with potential AFV buyers. The Electric Vehicle Association of Greater Washington, D.C., for example, advertises used electric vehicles (EVs) on its Web site, [www.evadc.org/forsale.html](http://www.evadc.org/forsale.html). The vehicles listed are older conversions, and appropriate for individual EV enthusiasts and hobbyists.

The Natural Gas Vehicle Coalition (NGVC) lists used natural gas vehicles, in addition to natural gas equipment,

in a special section of its Web site. NGVC's market exchange, located at [www.ngvc.org/mktxch.html](http://www.ngvc.org/mktxch.html), typically features seven to ten vehicles at one time. "People have found the site to be a viable medium for selling vehicles," said NGVC's David Steele, Director of Communications and Member Services.

The U.S. General Services Administration (GSA) advertises natural gas vehicles recently retired from the nation's largest AFV fleet, the Federal fleet, on the NGVC site. Most Federal agencies lease or purchase their AFVs through GSA, which also sells the vehicles at public auctions when an agency is ready to replace them. According to GSA, most Federal fleet vehicles are retired after four or five years of use—meaning the AFVs bought or leased as part of the Federal fleet's initial Energy Policy Act (EPAct) compliance strategy are now approaching retirement. The addition of these vehicles to the resale inventory will greatly boost the resale market. Since it began advertising on the NGVC market exchange, GSA has heard from several hundred people interested in purchasing used Federal AFVs. According to GSA staff, 75% of the respondents were not fleet personnel but individual consumers encouraged by local alternative fuel incentives and high occupancy vehicle (HOV) lane privileges for AFVs. GSA has also experienced resale success at regional auctions. In the Dallas-Fort Worth region, for example, GSA recently sold 10 of its natural gas vans to a shuttle company in New Mexico. According to Dallas-Fort Worth Clean Cities Coordinator, Nan Miller, "Auto auctions are becoming a popular place for people who are looking to purchase AFVs, but there is still a strong need for public education." Miller, who bought her personal AFV at a local GSA auction, said the southwest regional GSA office holds as many as 10 automobile auctions each year, some of which feature used AFVs.

The City of Dallas, in cooperation with a local auction house, also sells its used natural gas vehicles at auctions several times a year. Buyers can learn what vehicles will be available at future auctions on the Web, at [www.lonestarauctioneers.com](http://www.lonestarauctioneers.com), or by calling Lone Star Auctioneers, Inc., at 817-740-9400 or the City of Dallas Sales and Auction Services Division at 214-670-3071. The City of Fort Worth also holds an annual auction to sell its used light- and heavy-duty vehicles, some of which operate on



The AFV resale market is an emerging opportunity for both fleet purchases and private individuals.

propane. Interested buyers can call 817-870-5101 for more information on available vehicles.

Used AFVs, particularly those serving niche markets such as taxis and delivery vehicles, are gaining modest attention in other parts of the country as well. Fleets have been successful buying and selling used AFVs in Clean Cities regions, including Long Island, NY; the Washington D.C. area; and Salt Lake City.

**G**rowing interest and regional successes point to the need for a concentrated national AFV resale effort. “We need to establish a framework for a national program that gives fleets a convenient place to locate and purchase used AFVs,” said Ira Dorfman, President of Dorfman & O’Neal, Inc. With funding from a U.S. Department of Energy Broad Based Solicitation grant, Dorfman & O’Neal has studied the AFV resale market to determine current industry practices and the best strategies for developing a viable secondary AFV market. “Taxi, rental car, and other large AFV fleets that purchased AFVs in the mid 1990s are now ready to replace their vehicles with new ones. But these used AFVs still have lots of useful life in them and are not ready to be taken out of service,” he said. “Fleets interested in AFVs—smaller companies without big budgets for vehicles—can look to used AFVs as a less expensive way to jump into the world of alternative fuels.”

But there are barriers. Lack of awareness of available opportunities and inadequate notification of these opportunities hinder market growth. The short notice given to potential AFV buyers limits the amount of time they have to research the vehicle, evaluate refueling options, ensure it meets their fleets’ needs, and pull together the required financing.

Another problem, according to Dorfman, is the misperception that the resale value of AFVs is lower than comparable gasoline vehicles. Currently, there is no standard for setting the values of used AFVs. AFVs offered at auction frequently sell for less than comparable gasoline vehicles—dealers familiar with the AFV industry purchase these under-priced vehicles and quickly turn around and sell them at much higher prices. Since the initial resale price is

the one most frequently reported, a false impression is given that AFV residual values are lower than comparably equipped gasoline vehicles, when in fact, AFV resale values can be as high or higher than gasoline vehicles as long as AFV customers are aware of their availability.

“The entrepreneurs who have recognized these financial opportunities have taken advantage of them. While you can’t fault their success, these windfall profits are made at the expense of alternative fuel stakeholders,” said Dorfman. “The whole key to a healthy AFV resale marketplace is to eliminate the middleman and sell AFVs directly to end users at prices comparable to gasoline vehicles,” he said.

Higher residual values will encourage more new AFV purchases, which will eventually build the inventory of used AFVs, giving used vehicle buyers more options. Also, higher residual values will help lower leasing costs by assuring dealers and other leasing agents that the used vehicles will sell once the lease agreement has expired. “It’s in everybody’s best interest to maximize the value of used AFVs,” said Dorfman. “A dynamic AFV resale market will increase the residual value of AFVs, helping to ensure that new AFV buyers see a return on their investment when they sell their vehicles,” he said.

But building a national AFV resale market is a long-term process, and the Clean Cities Program is working to determine exactly what role it can play in the development of a larger scale national AFV resale effort. “It is important that there is a reliable mechanism for interested buyers to locate used AFVs and to provide assurance that the vehicles are operating properly,” said Clean Cities Director Shelley Launey. “We don’t have all the answers yet for this fledgling market, but it is a subject we will be examining more closely at the Seventh National Clean Cities Conference in May,” she said.

Small-scale and regional successes indicate a growing interest in AFV resale. With the collaboration of Clean Cities and alternative fuel stakeholders, as more used AFVs come to the market, a national AFV resale effort will follow. For more information about the role for used AFVs at the Seventh National Clean Cities Conference, look for a conference agenda soon to be posted on the Clean Cities Web site at [www.ccities.doe.gov/conference.html](http://www.ccities.doe.gov/conference.html).

As a rule, most fleet vehicles are well maintained and have a lot of useful life left in them.



The resale market gives fleet operators the opportunity to gain first hand experience in the benefits of operating AFVs.





# E85 Grows in Popularity

## Minnesota Team Helps Increase the Use of Ethanol

**T**he AFV industry has long been puzzled by the so-called chicken and egg problem—what comes first, the vehicles or the stations? At first, flexible fuel vehicles (FFVs), which can operate on both ethanol and gasoline and do not burden the customer with an incremental cost, seemed a perfect solution to the problem. There are hundreds of thousands of FFVs on the road today—more than all other alternative fuel vehicles (AFVs) combined. FFVs have penetrated the consumer retail market as well as the fleet market and are now the highest volume type of AFV sold. The problem? Most FFV drivers continue to refuel with gasoline and not ethanol. In fact, most FFV owners don't even know about the ethanol fueling capability.

Several groups across the country are hard at work to change the FFV situation (see side box). With fifty refueling stations offering E85, a blend of 85% ethanol and 15% gasoline, the Twin Cities region of Minnesota boasts one of the most successful efforts to date. As one of DOE's E85 pilot project cities and an AFV USER region, it's no wonder that a strong team of E85 proponents has emerged in the Twin Cities region (for more information on DOE's AFV USER Program, check out [www.ott.doe.gov/afvuser/](http://www.ott.doe.gov/afvuser/)). Directed through the American Lung Association of Minnesota (ALAMN) and the Clean Air Fuels Education (CAFE) Alliance, the Minnesota (MN) E85 team is a true public-private partnership. It includes Ford Motor Company, Minnesota Coalition for Ethanol, Minnesota Corn Growers Association, Minnesota Department of Commerce, Minnesota Department of Agriculture, National Ethanol Vehicle Coalition, and U.S. DOE. In September, the team received the Minnesota Governor's Award for Excellence in Waste and Pollution Prevention.

### Model Year 2001 Flexible Fuel Vehicles

Manufacturer	Model	Vehicle Type
DaimlerChrysler	Chrysler Town and Country,	Minivan
	Chrysler Voyager, Grand Voyager, Dodge Caravan, Grand Caravan	
Ford	Taurus	Sedan
	Explorer Sport, Explorer Sport Track	Sport Utility Vehicle
General Motors	Chevrolet S-10, GMC Sonoma	Light-duty Pickup



TC4 Coordinator Tim Gerlach refuels his FFV with E85—for free—thanks to a giveaway sponsored by the Minnesota E85 Team.

American Lung Association of Minnesota/PIX 05789

The team's two priorities are to increase E85 availability and to increase the number of FFV drivers who use the fuel. Like many AFV efforts, the team has focused some of its attention on outreach to local public and private fleets. In addition to the state fleet, which includes nearly 800 FFVs, the MN E85 team is working with Federal fleets in the area, such as the U.S. Postal Service, to encourage FFV procurement and, more importantly, use the growing E85 refueling station network.

With more than 5,500 registered commuter programs in the area, carpools and vanpools stand out as an important element of the region's FFV market. The MN E85 team's fuel rebate trial has been particularly well received—carpools and vanpools that bought 85 gallons of E85 received a check in the mail for \$15, partially funded by Metro Commuter Services.

But what makes the Minnesota E85 program stand out from many others is not its fleet outreach activities, but its effort to increase E85 use by general consumers. "There are 45,000 FFVs registered in Minnesota," said ALAMN's Tim Gerlach, Director of Outdoor Programs. "We just need to connect the drivers with the fuel. The marketplace is changing, and consumers are starting to consider the environment an important factor in their purchase decisions. We're asking them to make the Clean Air Choice," he said.

All of the region's 50 E85 stations are publicly accessible—and convenient for the public to use. Holiday Stationstores, the third largest chain of stations in the Twin Cities region, operates 17 locations with E85 pumps. Holiday recognizes the important benefits of cleaner



fuels—it was first fuel provider outside the state of California to offer only low-sulfur gasoline at all of its Twin Cities region outlets. Holiday's E85 pumps are located on the same island as the gasoline dispensers so drivers don't need to go out of their way to refuel with the cleaner alternative. They just need to know they have the choice. "Our biggest problem is that people don't even realize they have a vehicle capable of running on something other than gasoline," said Gerlach.

To help educate consumers and raise awareness of the benefits of E85, MN E85 team partners have organized a series of public refueling site promotions. They are literally giving the fuel away (for a limited period of time). Ford, which has helped fund some of the marketing activities, advertises the events at its dealerships, along with the participating fuel station. The E85 team also distributes "free fuel" post cards, which include a list of vehicles capable of using E85. With today's higher oil prices forcing consumers to dig deeper into their pockets at each trip to the gas station, the free fuel invitation has attracted a lot of attention. "These events have really helped increase awareness, and because it's a giveaway, we've received a lot of free media coverage," said Gerlach. "The first time we did it, 98% of the people who came were first time users who didn't even know the E85 pump was there," he said.

With 42 stations open in September 2000, E85 sales reached 40,000 gallons, but the team would like to double that over the next six months by building a larger public outreach campaign. "So far, since we have a limited budget, we've only been testing the water to see which promo-

tional strategies are most effective," said Gerlach. "We are trying to raise additional funds so we can launch a larger education and marketing campaign in early 2001 to coincide with new model year vehicle availability."

The team hopes to establish a major public presence through popular magazine advertising, and negotiations are underway to secure the help of very recognizable spokespeople. It also plans to partner with local dealer associations on commercial advertising projects, and to ensure Minnesota's future drivers are fully aware of all of their fuel options, the team is developing an E85 lesson plan to distribute to schools located within the region's infrastructure network.

The Minnesota E85 team would like to expand the number of E85 stations to 400 by the end of 2002. Impossible? Maybe not, according to Gerlach. The vehicles are already on the road so the stations are sure to follow. "We've surpassed all of our initial goals—we'd hoped to have 50 stations in place by the end of 2000 and we've already done that," said Gerlach. "It's amazing how things have changed now that people realize what's happening. I recently approached a woman at a local gas station, asked her if she knew she could fill her vehicle with E85, and she gave me a 10-minute lecture on the benefits of using the fuel. If we can get a few more folks like her choosing E85, our job will be done."

### Where Do Minnesotans Get Their Ethanol?

In Minnesota, FFV drivers who use E85 can be assured their fuel is home grown. The Land of 10,000 Lakes now has 14 ethanol production facilities, and all but two of the plants are farmer-owned cooperatives. Most of the state's ethanol is produced from cornstarch, although some is made from a byproduct of cheese production at a local Kraft Foods plant. Minnesotans have a long, successful history with fuel ethanol. Through a statewide oxygenated fuel program, 97% of Minnesota gasoline is blended with 8-10% ethanol.

For more information on the Minnesota E85 Project, the Twin Cities Clean Cities Coalition (TC4) and other ALAMN CAFE Alliance activities, please access [www.cleanairchoice.org](http://www.cleanairchoice.org).



American Lung Association of Minnesota/PIX 03790

Drivers in the Twin Cities can now refuel FFVs at any of 50 public access E85 Stations in the area, thanks in part to the Minnesota E85 Team, shown here standing in front of an FFV.

## Governor Declares Ethanol North Carolina's State Fuel

On September 27, 2000, North Carolina Governor Jim Hunt signed a proclamation requiring all state FFVs to use ethanol whenever possible. Governor Hunt also used the proclamation to publicly offer his support to the Triangle Clean Cities Coalition, which serves the Raleigh-Durham-Chapel Hill region and is one of the state's most active E85 proponents. In addition to requiring E85 use in state FFVs, the proclamation requires the creation of a common



accounting system allowing Federal, state, and local government fleets in North Carolina to share E85 refueling facilities. It also encourages private companies to add ethanol pumps to existing gasoline stations, enabling public access to the fuel. Triangle Clean Cities is among the newest coalitions to join the National Clean Cities Program. Plans are underway for a designation ceremony in Raleigh in March 2001.

## Clean Cities are Building Local Energy Security

by DOE's David Rodgers, Director, Office of Technology Utilization

For seven years, the Clean Cities Program has promoted the use of alternative fuel vehicles (AFVs) to enhance national energy security and improve air quality. Along the way, we have learned that many communities find the local air quality benefits sufficient by themselves to expand the use of AFVs. We have also learned that putting "national energy security" issues on a local agenda is very difficult. The recent run-up in oil prices and shortages of heating oil in some regions of the country have reminded us that the lack of "local energy security" can lead to adverse impacts on consumers, fleets, businesses and local economies. Electricity shortages and high prices in selected communities in California and other states only serve to drive the point home.

Perhaps without realizing it, Clean Cities coalitions are enhancing "local energy security" by increasing the use of alternative fuels in their communities. By using clean alternative fuels to power local services, such as school buses, city services, trash collection, mail delivery, and grocery delivery, Clean Cities coalitions are strengthening their resiliency to an energy or environmental emergency. If conditions produce locally high air pollution or oil prices, the city can still get its job done because critical services can operate on clean alternative fuels. A community with a strong and diverse transportation fuel system can advertise for economic development with a clear commitment to deliver mission-critical services because it has a clean, alternative, domestic fuel powering the economy. Short supplies of conventional fuels can be saved for our transportation systems that are not ready to adopt alternative fuels, such as jet aircraft.

Investing in alternative fuels to enhance diversity and resiliency pays off in the short-term through clean air

and cost savings (using natural gas and other low-cost alternative fuels). It pays off in a crisis when gasoline or diesel fuel costs go through the roof or when supplies are disrupted. And it pays off in the long term as petroleum resources are supplanted by alternative and renewable fuels. We have several examples both in and out of the transportation arena—

- Harris Ranch, one of the largest agribusinesses in California, converted some of its heavy-duty trucks to LNG last year. During this year's diesel price hike, the company saved more than 5 cents per mile delivering groceries.
- Local U.S. Postal Service fleets in Huntington Beach, California and El Paso, Texas—which are 100% alternatively fueled—continue to deliver mail using natural gas vehicles regardless of the availability and price of gasoline.
- In New York City, a local apartment co-op installed high-efficiency lights last year expecting payback in 3-5 years. With last summer's price increase in electric costs, residents enjoyed a pay back after just 8 months.

This could be a new paradigm of "local energy security." Of course, it's not really new—communities that build self-sufficient, sustainable economies have always been attractive places to live and work. As local Clean Cities coalitions continue to pursue market development for alternative fuels, they should be aware of and prioritize areas that enhance local energy security. If you have a personal success story in this area or would like to suggest ways Clean Cities can strengthen local energy security, please call us at 800-CCITIES, or visit our success stories web page located at [www.ccities.doe.gov/success.shtml](http://www.ccities.doe.gov/success.shtml).